

What is claimed is:

1. A heat-sensitive lithographic printing plate comprising  
a substrate having a hydrophilic surface and  
5 a heat-sensitive layer made of an alkali-soluble polymer formed on the surface  
of the substrate, wherein  
an advancing contact angle ( $\theta^{\text{f1}}$ ) of the surface of the heat-sensitive layer with  
water at 25°C is within a range from 70° to 110°, a receding contact angle ( $\theta^{\text{b2}}$ ) of the  
surface of the heat-sensitive layer with water at 25°C after heating at 150°C for 3 minutes  
10 is larger than a receding contact angle ( $\theta^{\text{b1}}$ ) of the surface of the heat-sensitive layer with  
water at 25°C before heating, and a difference in receding contact angle before and after  
heating, ( $\theta^{\text{b2}} - \theta^{\text{b1}}$ ), is larger than 1° and is smaller than 40°.
2. The heat-sensitive lithographic printing plate according to claim 1, wherein the  
15 receding contact angle ( $\theta^{\text{b1}}$ ) is within a range from 5° to 50° and the receding contact  
angle ( $\theta^{\text{b2}}$ ) is within a range from 30° to 60°.
3. The heat-sensitive lithographic printing plate according to claim 1, wherein the  
alkali-soluble polymer is a copolymer of a monomer having a carboxyl group and a  
20 hydrophobic monomer, and the heat-sensitive layer is formed by applying a heat-  
sensitive composition, which is prepared by dissolving the copolymer in an aqueous  
alkaline solution, on the surface of the substrate and drying the heat-sensitive  
composition.
- 25 4. The heat-sensitive lithographic printing plate according to claim 3, wherein the

alkali-soluble polymer has an acid value of 40 to 500 and a weight-average molecular weight of 5,000 to 200,000.

5. The heat-sensitive lithographic printing plate according to claim 3, wherein the  
5 monomer having a carboxyl group is acrylic acid or methacrylic acid, and the hydrophobic monomer is at least one type of a monomer selected from the group consisting of styrene, styrene derivatives and methyl methacrylate.
6. The heat-sensitive lithographic printing plate according to claim 3, wherein the  
10 monomer having a carboxyl group is acrylic acid, the hydrophobic monomer is styrene, and a weight ratio of acrylic acid to styrene is within a range from 40:60 to 15:85.
7. The heat-sensitive lithographic printing plate according to claim 3, wherein the  
monomer having a carboxyl group is acrylic acid, the hydrophobic monomer is methyl  
15 methacrylate, and a weight ratio of acrylic acid to methyl methacrylate is within a range from 14:86 to 5:95.
8. An image forming method, which comprises forming a latent image on a heat-sensitive layer of the heat-sensitive lithographic printing plate of claim 1 using heat  
20 generated upon irradiation with laser light, and developing the heat-sensitive layer using an alkaline developing solution of pH 9 to 14.